IN THE CLAIMS

1.   (Canceled)

2.   (Currently Amended) The image reading device according to claim [[1]] 5, wherein

in a case said optical disc is a multi-layer optical disc, said adjusting section adjusts, for

each layer, the slice level set by said slice level setting means to the optimum slice level, when

the optical disc is set.

3.   (Canceled)

4.   (Currently Amended) The image reading device according to claim [[1]] 5, further

comprising: a jitter detecting section for detecting a jitter of the RF signal, wherein

an equalizer characteristics thereof characteristic of the jitter detecting section is fixed,

and

when said adjusting section changes [[a]] the slice level set by said slice level setting

means and said jitter detecting section detects at least two slice levels, a slice level detected when

said jitter detected by said jitter detecting section is at a minimum level is judged to be [[an]] the

optimum slice level.

5.   (Currently Amended) [[The]] An image reading device according to claim 3, wherein for

an optical disk, comprising:

a detecting section for detecting the setting of an optical disc to a related location,

a reading section for reading information out of said optical disc of which the setting is detected,

slice level setting means for binarizing an RF signal output from said reading section at a predetermined slice level set by said slice level setting means,

an adjusting section for adjusting a slice level set by said slice level setting means to an optimum slice level which is best fit for the optical disc, when the setting of the optical disc is detected by said detecting section, said adjusting section increments [[a]] the slice level set by said slice level setting means from a reference slice level in steps of a fixed quantity, and

a jitter detecting section for detecting a jitter of the RF signal,

when said adjusting section changes the slice level set by said slice level setting means, the slice level detected when said jitter detected by said jitter detecting section is at a minimum level is judged to be the optimum slice level,

when the jitter detected at the incremented slice level has a decreasing direction in quantity, said adjusting section repeatedly continues the incrementing of the slice level till the jitter changes quantity varying direction to an increasing direction,

when the jitter detected at the incremented slice level has an increasing direction in quantity, said adjusting section decrements the slice level from the reference slice level in steps of a predetermined fixed quantity,

when the jitter detected at the decremented slice level has a decreasing direction in quantity, the decrementing of the slice level is repeatedly continued till a quantity varying direction of the jitter is changed to an increasing direction, and

said adjusting section judges that the slice level detected when the jitter changes varying direction from the decreasing direction to the increasing direction or the increasing direction to

the decreasing direction, takes a minimum value, and judges the slice level detected at that time

to be [[an]] the optimum slice level.

6.   (Currently Amended) [[The]] An image reading method in said an image reading device

for an optical disk according to claim 3, the image reading device including:

a detecting section for detecting the setting of an optical disc to a related location,

a reading section for reading information out of said optical disc of which the setting is

detected,

slice level setting means for binarizing an RF signal output from said reading section at a

predetermined slice level set by said slice level setting means,

an adjusting section for adjusting a slice level set by said slice level setting means to an

optimum slice level which is best fit for the optical disc, when the setting of the optical disc is

detected by said detecting section, and

a jitter detecting section for detecting a jitter of the RF signal,

wherein when said adjusting section changes a slice level set by said slice level setting

means, a slice level detected when said jitter detected by said jitter detecting section is at a

minimum level is judged to be an optimum slice level; the method comprising the steps of:

(a)   incrementing [[a]] the slice level set from a reference slice level in steps of a fixed

quantity,

(b)   when the jitter detected at the incremented slice level has a decreasing direction in

quantity, repeatedly continuing the incrementing of the slice level till the jitter changes quantity

varying direction to an increasing direction,

(c)   when the jitter detected at the incremented slice level has an increasing direction in

quantity, decrementing the slice level from the reference slice level in steps of a predetermined

fixed quantity,

(d)   when the jitter detected at the decremented slice level has a decreasing direction in

quantity, repeatedly continuing the decrementing of the slice level till a quantity varying

direction of the jitter is changed to an increasing direction,

(e)   judging that the slice level detected when the jitter changes varying direction from the

decreasing direction to the increasing direction or the increasing direction to the decreasing

direction, takes a minimum value, and

(f)   judging the slice level detected at that time to be [[an]] the optimum slice level.

7.   (Original) An image reading method for an optical disc comprising the steps of:

(a)   storing a jitter detected at a first slice level in a first memory,

(b)   storing a jitter detected at a second slice level larger than the first slice level in a second

memory,

(c)   reading out the jitters stored in said first and second memories to compare,

(d)   after the comparison in the step (c), leaving the memory in said memory storing a smaller

jitter and deleting the memory in said memory storing a larger jitter,

(e)   as a result of the comparison in the step (c),

        when a jitter of the first slice level is larger than a jitter of the second slice level, a third

slice level larger than the second slice level is selected to detect a jitter so as to store in said

memory in which the memory is deleted, and

when a jitter of the first slice level is smaller than a jitter of the second slice level, a third

slice level smaller than the first slice level is selected to detect a jitter so as to store in said

memory in which the memory is deleted,

(f)   reading out to compare the jitter newly stored in the step (e) and the jitter left in

the step (d),

(g)   according to the same processes as in the steps (d) and (e), deleting the memory in any

one of said first and second memories to set a new slice level, and

(h)   repeating the processes as in the steps (c) to (g), at a time when a jitter by the new slice

level becomes larger, the slice level at which a small jitter is detected is set to be the best slice

level.